Komatsu Oil and Wear Analysis—KOWA

Predictive Maintenance reveals problems with your equipment

- KOWA is Komatsu’s oil sampling system
- Analyze your oil regularly to help predict what could go wrong in the future

Why Sample Oil?
Anyone who owns or operates equipment understands that the fluids running through the machinery are their lifeblood—fluids like engine oil, transmission oil, hydraulic oil, gear oil, grease and coolant. The purpose of the fluids is to protect and lubricate the equipment.

Normal wear rates
There are normal wear rates for each moving part of a circuit, which is lubricated with oil. As these parts wear, particles will appear in the oil. These particles are small but easily detected through regular oil analyses. An oil analysis will highlight increases in the quantity of contaminants and can identify areas of concern, opening the door for preventive action before a failure occurs.

At each oil sampling, you develop a baseline of contaminant levels. Periodic oil sampling shows changes in contaminant levels which indicate wear patterns over a specific time period. With the combination of regular oil sampling and routine preventive maintenance you can enjoy the following benefits.

- Scheduled downtime
- Increased component life
- Reduced costs
- Increased safety during machine operation

How often should you submit oil samples?
Oil sampling is recommended for every 250 – 500 hours of operation for engines and every 500 hours for other components. Check the manufacturer’s maintenance guidelines for your equipment models.
What is KOMTRAX?
KOMTRAX is a wireless monitoring system installed on your Komatsu equipment to help you manage your assets more effectively and efficiently. KOMTRAX comes standard on most new Komatsu equipment.

How can KOMTRAX help your business?
- Reduce your project costs
- Minimize machine downtime
- Enhance equipment performance
- Prevent equipment and fuel theft
- Improve customer satisfaction

Reduce Costs and Machine Downtime
With KOMTRAX, Kirby-Smith is notified when there is a problem with your equipment and can discuss a repair schedule with you, based on the urgency of the problem. If repairs or further diagnostics are required, KOMTRAX data indicates what parts may be needed, so the technician can arrive prepared to solve the problem and have your machine up and running as quickly as possible.

Save Fuel and Work Faster
KOMTRAX can help you lower fuel costs and improve productivity by providing information on equipment usage. Armed with data for machine idle time, fuel burn, operating modes and load factors, you can make informed decisions.

What is your actual machine productivity? Do you have the right size equipment on the job? Are there employees who may require additional training? Kirby-Smith offers operator training to assure your equipment is used properly. Training also allows your operators to take advantage of all the fuel savings and productivity features included in your Komatsu equipment.

Schedule Maintenance
KOMTRAX tracks service history and will notify you when maintenance is due. Technicians will be more efficient when they have the information from KOMTRAX regarding current equipment hours and location.

Retrofits Available
Any piece of equipment with a 12V or 24V electrical system can be retrofitted with KOMTRAX, including service trucks, utility machines and non-Komatsu equipment.

Prevent Theft
KOMTRAX enables you to lock your equipment remotely to protect against theft of equipment and fuel. Your equipment data on the KOMTRAX site can only be accessed by you and anyone you authorize with your user ID and password.

FREE Activation for 5 Years
**Remanufacturing Services**

**Mechanical Components, Engines, Transmissions, Hydraulics**

- Most brands and models
- Quick turnaround
- Components rebuilt to OEM specifications
- Savings of up to 40% over buying new

**Complete Machine Rebuilds**

We offer factory Certified Rebuilds where the machine is disassembled to the bare frame and rebuilt with all OEM remanufactured components, systems, electrical harnesses, instruments, drive lines, hydraulic components, hoses, new paint and decals. All machine updates are included, along with a new machine warranty.

**Hydraulic Services**

Kirby-Smith offers repairs and remanufacturing of cylinders, pumps and motors, as well as valve rework and reconditioning. If it’s hydraulic and we can find the parts, Kirby-Smith can service, repair or rebuild it.

For hydraulic pumps, motors and valves, we can repair or rebuild most brands or models. Our testing procedures assure that the rebuilt or repaired components meet OEM standards.

Cylinders and suspensions are disassembled and inspected to identify problems. We repair damaged surfaces to OEM specifications and replate, weld repair and retube, as required. Our special test equipment measures the entire stroke under simulated operating conditions. Static suspensions testing is included.

**Mechanical Components**

- Final Drives
- Differentials
- Gear Boxes
- Idler Assemblies
- Wet Brakes
- Drop Boxes
- Gear Reducer Assemblies

**Engines**

- Komatsu
- Cummins
- Caterpillar
- Detroit

**Transmission**

- Motors
- Generators
- Gen Sets Alternators
- Control Systems
- Wheel Groups

**Services**

- Major Overhaul
- Inframe Rebuilds
- Minor Repair
- Evaluation and Inspection
- Failure Analysis
- Application Analysis
- Ultrasonic Testing in the Field
- Component Upgrade
- Hydraulic Hose Fabrication
Crane Services

Comprehensive Services, from Parts to Inspections

- Crane Inspections
- Preventive Maintenance
- Emergency Repairs

Crane Inspection Services
Kirby-Smith offers crane inspections that satisfy all OSHA and ANSI requirements. With periodic crane inspections, you can avoid unplanned downtime, unexpected breakdowns and injuries. Kirby-Smith is certified to conduct annual crane and truck crane inspections.

Preventive Maintenance
Kirby-Smith offers a preventive maintenance program that puts the burden of servicing your cranes on us. Just tell us which machines you’d like us to cover, and we’ll make sure they’re properly serviced on time by a qualified technician.

Services are completed by a factory trained technician and include approved fluids and filters, oil sample analysis, mobile lube services, technical inspections to identify repair needs, and a comprehensive visual inspection to spot potential problems before they require more expensive repairs and cause lost production time. Second shift service is available.
Emergency Repairs 24/7
We are on call 24 hours a day, seven days a week for your emergency repair needs.

Modernization Upgrades
Kirby-Smith offers several rebuild options for cranes, so you can schedule your machine’s downtime at a predetermined cost. We use OEM parts for all of our rebuild options to improve machine performance and to assure maximum component life. Why wait for delivery of a new unit when your existing crane can be modernized at a significantly reduced cost?

Online Manuals
Electronic parts manuals for Grove, Manitowac, and National Crane are available online with the Digital Document Distribution system (D3).

Extensive Rental Fleet
With one of the largest rental fleets in the region, Kirby-Smith keeps downtime to a minimum. Rent one of our cranes while your equipment is being serviced or modernized

Online Crane Parts and Accessories
Kirby-Smith carries a complete range of parts and accessories for cranes. Go to www.mykomatsu.com and log onto Kirby-Smith’s secure site to find all your crane parts.
Ground Engaging Tools and Attachments

Buckets, Blades, Edges or Teeth

- Compatible with any brand, any model
- Kirby-Smith Machinery stocks a complete range of economically priced, high quality ground engaging tools for all makes of construction equipment
OEM and all makes undercarriage components are available

Piping, couplers, clamps for installation of hydraulic piping in excavators
Equipment
Aerial Platforms
Air Curtain Destruction
Articulated Trucks
Backhoe Loaders
Boom Trucks
Brooms
Compressors
Concrete Equipment
  Pavers, Placers, Trimmers
Cranes
Crawler Carriers
Crushers
Dozers
Excavators
Forklifts
Generators
Graders
Hydraulic Hammers
Light Plants
Pumps
Rigid Frame Trucks
Rollers
Scissor Lifts
Shovels
Skid Steer Loaders
Telehandlers
Trailers
Wheel Loaders

Services
Technical on-site field service by factory trained parts & service technicians
Fully equipped service trucks for on-site service repairs
Multimillion dollar parts inventory
24 Hour emergency parts service
Knowledgeable representatives provide product support
Online ordering
Track management
Repair and maintenance programs
Oil and wear analysis
24 Hour emergency services
Preventive Maintenance Agreements
Fleet Services
Training for your staff
Rental equipment, short-term and long-term
Used equipment

Remanufacturing, Repairing and Rebuilding for Most Major Brands
Engine, Transmission, Torque Converters and Electric Generation Services
Hydraulic pumps, valves and cylinders

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All equipment lines are not available in all markets